

5646

WA



PCT09

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/936,869

DATE: 05/02/2002

TIME: 14:20:47

Input Set : A:\256351.txt

Output Set: N:\CRF3\05022002\I936869.raw

p.6

ENTERED

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3 <110> APPLICANT: Carter Holt Harvey Limited
4 Fletcher Challenge Forests Limited
5 Michigan Technological University
6 Podila, Gopi Krishna
7 Liu, Jun-Jun
8 Karnosky, David F
10 <120> TITLE OF INVENTION: Plants Having Modified Reproductive Activity
12 <130> FILE REFERENCE: 25635 MRB
C--> 14 <140> CURRENT APPLICATION NUMBER: US/09/936,869
C--> 15 <141> CURRENT FILING DATE: 2002-03-29
17 <150> PRIOR APPLICATION NUMBER: NZ334715
18 <151> PRIOR FILING DATE: 1999-03-17
20 <160> NUMBER OF SEQ ID NOS: 17
22 <170> SOFTWARE: PatentIn Ver. 2.1
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32 ctgctcagggt acattagttt ggtaagggtt gcttggcttc tgggtaatat gagaagtaaa 180
33 gaagtaaaaag gtatttgact ctagtcaagt acattggatt gcctttgtcg gggcttggat 240
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36 caatgcgcaa ccaaggcaga ttcacaactt gattttctgga cctcgaatac gagataatgg 420
37 tggtaagaaa taaaggaaga gtggagtgc tttgaaaatg aatggagagc gcacaaaatg 480
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Input Set : A:\256351.txt

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92 <221> NAME/KEY: CDS
93 <222> LOCATION: (1)..(669)
94 <223> OTHER INFORMATION: Pinus radiata MADS box protein mRNA, complete cds
96 <300> PUBLICATION INFORMATION:
97 <301> AUTHORs: Jun-Jun, Liu
98 Podila, G K.
99 <302> TITLE: Not applicable
100 <303> JOURNAL: Direct submission
101 <304> VOLUME: -
102 <305> ISSUE: -
103 <306> PAGES: ---
104 <307> DATE: 1997-09-09
105 <308> DATABASE ACCESSION NO: Genbank AF023615
106 <309> DATABASE ENTRY DATE: 1999-01-26
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PATENT APPLICATION: US/09/936,869

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Input Set : A:\256351.txt

Output Set: N:\CRF3\05022002\I936869.raw

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116           20           25           30
118 tat gaa tta tca gtt ctt tgt gat gca gaa gtg gcc ctc atc gtc ttc   144
119 Tyr Glu Leu Ser Val Leu Cys Asp Ala Glu Val Ala Leu Ile Val Phe
120           35           40           45
122 tcc agc aga ggg aga ctt tat gaa ttt gcc aac cac agc gtg aag agg   192
123 Ser Ser Arg Gly Arg Leu Tyr Glu Phe Ala Asn His Ser Val Lys Arg
124           50           55           60
126 acg att gag agg tac aag aag act tgc gtt gac aac aac cac gga ggg   240
127 Thr Ile Glu Arg Tyr Lys Lys Thr Cys Val Asp Asn Asn His Gly Gly
128   65           70           75           80
130 gcg ata tca gag tcc aat tct cag tat tgg caa cag gag gct ggt aaa   288
131 Ala Ile Ser Glu Ser Asn Ser Gln Tyr Trp Gln Gln Glu Ala Gly Lys
132           85           90           95
134 ctc aga caa cag att gac att ttg caa aat gca aat agg cat ttg atg   336
135 Leu Arg Gln Gln Ile Asp Ile Leu Gln Asn Ala Asn Arg His Leu Met
136           100          105          110
138 ggt gac ggg ctt aca gct ttg aac att aag gaa ctc aag caa ctt gag   384
139 Gly Asp Gly Leu Thr Ala Leu Asn Ile Lys Glu Leu Lys Gln Leu Glu
140           115          120          125
142 gtt cga ctt gaa aaa gga atc agc cga gtg cga tcc aaa aag aac gag   432
143 Val Arg Leu Glu Lys Gly Ile Ser Arg Val Arg Ser Lys Lys Asn Glu
144           130          135          140
146 atg ttg ctt gaa gag atc gac atc atg cag aga agg gaa cac ata ctt   480
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148 145           150          155          160
150 atc cag gag aat gag att ctt cgc agc aag ata gcc gag tgt cag aat   528
151 Ile Gln Glu Asn Glu Ile Leu Arg Ser Lys Ile Ala Glu Cys Gln Asn
152           165          170          175
154 agc cac aac acg aac atg tta tca gct ccg gaa tat gat gca ctg ccc   576
155 Ser His Asn Thr Asn Met Leu Ser Ala Pro Glu Tyr Asp Ala Leu Pro
156           180          185          190
158 gca ttc gac tct cga aat ttc cta cat gca aat cta atc gat gcg gcc   624
159 Ala Phe Asp Ser Arg Asn Phe Leu His Ala Asn Leu Ile Asp Ala Ala
160           195          200          205
162 cat cac tat gca cat cag gaa caa aca acg ctt cag ctt ggc tga   669
163 His His Tyr Ala His Gln Glu Gln Thr Thr Leu Gln Leu Gly
164           210          215          220
166 acgttgaagc ggtggacgct taaaactcaa tcaaggcacc cgaaaaatat gctagtaacc 729
168 ttgaatgaga ttcagagtcg aaatattgcg aggcaagagc acaatggaag agatagctcc 789
170 tagtatgaat atggatttat gatattaaca tatggtttgt cagctttaaa tatagctgtt 849
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176 <211> LENGTH: 222
177 <212> TYPE: PRT
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DATE: 05/02/2002

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Input Set : A:\256351.txt

Output Set: N:\CRF3\05022002\I936869.raw

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186           35           40           45
187 Ser Ser Arg Gly Arg Leu Tyr Glu Phe Ala Asn His Ser Val Lys Arg
188           50           55           60
189 Thr Ile Glu Arg Tyr Lys Lys Thr Cys Val Asp Asn Asn His Gly Gly
190           65           70           75           80
191 Ala Ile Ser Glu Ser Asn Ser Gln Tyr Trp Gln Gln Glu Ala Gly Lys
192           85           90           95
193 Leu Arg Gln Gln Ile Asp Ile Leu Gln Asn Ala Asn Arg His Leu Met
194           100          105          110
195 Gly Asp Gly Leu Thr Ala Leu Asn Ile Lys Glu Leu Lys Gln Leu Glu
196           115          120          125
197 Val Arg Leu Glu Lys Gly Ile Ser Arg Val Arg Ser Lys Lys Asn Glu
198           130          135          140
199 Met Leu Leu Glu Glu Ile Asp Ile Met Gln Arg Arg Glu His Ile Leu
200          145          150          155          160
201 Ile Gln Glu Asn Glu Ile Leu Arg Ser Lys Ile Ala Glu Cys Gln Asn
202           165          170          175
203 Ser His Asn Thr Asn Met Leu Ser Ala Pro Glu Tyr Asp Ala Leu Pro
204           180          185          190
205 Ala Phe Asp Ser Arg Asn Phe Leu His Ala Asn Leu Ile Asp Ala Ala
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220 <223> OTHER INFORMATION: Arabidopsis thaliana ribonuclease (RNS2) mRNA,
221     complete cds
223 <300> PUBLICATION INFORMATION:
224 <301> AUTHORS: Taylor, C B.
225     Bariola, P A.
226     delCardayre, S B.
227     Raines, R T.
228     Green, P J.
229 <302> TITLE: RNS2: a senescence-associated RNase of Arabidopsis that
230     diverged from the S-RNases before speciation
231 <303> JOURNAL: Proc. Natl. Acad. Sci. U.S.A.
232 <304> VOLUME: 90
233 <305> ISSUE: 11

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DATE: 05/02/2002

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TIME: 14:20:48

Input Set : A:\256351.txt

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234 <306> PAGES: 5118-5122

235 <307> DATE: 1993

236 <308> DATABASE ACCESSION NO: Genbank

237 <309> DATABASE ENTRY DATE: 1994-10-30

238 <313> RELEVANT RESIDUES: 1 TO 1012

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246 Cys Ile Ala Gly Ala Phe Ala Gly Asp Val Ile Glu Leu Asn Arg Ser
247           15           20           25
249 cag agg gag ttc gat tat ttc gct cta tct ctt caa tgg cct gga acc 147
250 Gln Arg Glu Phe Asp Tyr Phe Ala Leu Ser Leu Gln Trp Pro Gly Thr
251           30           35           40
253 tat tgc cgt gga act cgc cat tgt tgc tcc aaa aac gct tgc tgc aga 195
254 Tyr Cys Arg Gly Thr Arg His Cys Cys Ser Lys Asn Ala Cys Cys Arg
255 45           50           55           60
257 ggc tcc gat gct cca act caa ttc aca att cat ggg tta tgg cct gac 243
258 Gly Ser Asp Ala Pro Thr Gln Phe Thr Ile His Gly Leu Trp Pro Asp
259           65           70           75
261 tat aac gat ggt tgc tgg cct tca tgt tgt tat cga tct gac ttt aaa 291
262 Tyr Asn Asp Gly Ser Trp Pro Ser Cys Cys Tyr Arg Ser Asp Phe Lys
263           80           85           90
265 gag aag gag att tca acg ttg atg gat ggt ctt gag aag tac tgg cct 339
266 Glu Lys Glu Ile Ser Thr Leu Met Asp Gly Leu Glu Lys Tyr Trp Pro
267           95           100          105
269 agt ctc agt tgt ggt tct cca tca tca tgc aat ggt ggg aaa ggg tca 387
270 Ser Leu Ser Cys Gly Ser Pro Ser Ser Cys Asn Gly Gly Lys Gly Ser
271          110          115          120
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274 Phe Trp Gly His Glu Trp Glu Lys His Gly Thr Cys Ser Ser Pro Val
275 125          130          135          140
277 ttt cat gat gag tat aat tac ttc ctt acc aca ctt aat ctc tac ttg 483
278 Phe His Asp Glu Tyr Asn Tyr Phe Leu Thr Thr Leu Asn Leu Tyr Leu
279          145          150          155
281 aag cat aat gtc acg gat gtc ctt tat caa gct ggc tat gtt gct tcc 531
282 Lys His Asn Val Thr Asp Val Leu Tyr Gln Ala Gly Tyr Val Ala Ser
283          160          165          170
285 aac agt gaa aag tat cct cta gga ggt atc gta aca gcc att cag aat 579
286 Asn Ser Glu Lys Tyr Pro Leu Gly Gly Ile Val Thr Ala Ile Gln Asn
287          175          180          185
289 gca ttt cat atc acc cct gaa gtg gtt tgc aaa aga gat gca atc gat 627
290 Ala Phe His Ile Thr Pro Glu Val Val Cys Lys Arg Asp Ala Ile Asp
291          190          195          200
293 gaa ata cgt ata tgc ttc tat aaa gat ttt aag ccc agg gac tgt gtt 675
294 Glu Ile Arg Ile Cys Phe Tyr Lys Asp Phe Lys Pro Arg Asp Cys Val
295 205          210          215          220
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RAW SEQUENCE LISTING ERROR SUMMARY
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Input Set : A:\256351.txt
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

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Seq#:8; N Pos. 6,12,15